

Cognex Vision Products Checker Vision Sensors

The incorporation of vision products into product manufacturing lines has allowed companies to drastically increase the quality of their products, packaging, and labeling. Vision products have evolved from simple photoelectric sensors to complex cameras and software that can find defects in parts of varying materials, orientations, and environments.

The Checker Vision Sensor

The Checker vision sensor family produced by Cognex Vision products includes a suite of vision solutions that can fit any production line and any budget. There are Checker vision sensors for high speed low resolution applications, as well as high-resolution sensors that provide exceptional details. The Checker sensors do not have to be wired to a PLC and do not require trigger sensors for operation.

A Checker vision sensor includes a camera, processor, lighting, and optics all in one package, which is designed to be fit easily into tight locations without requiring custom fixturing. Sensors can be installed in key locations and quickly programmed using the SensorView teach pendant, a panel-mount display that can be used not only to instruct the sensors, but also to view production statistics of parts that the Checker sensor has inspected.

There are two categories of Checker sensors: the 3G series and then 200 series. Both types are available in standard and high resolution models and contain patented part recognition technology, and both are compatible with the SensorView teach pendant.

The Checker 3G sensor series includes options that do not require a PC to set up, and are easily programmed using a SensorView teach pendant. Checker 3G sensors can be configured as either presence or measurement sensors.

The Checker 200 sensor series provides more options than the 3G series, including logic for custom outputs and encoder-based part tracking.

Why Use Checker Vision Sensors?

Visual inspection systems, such as those that incorporate Checker vision sensors, can increase the overall quality of a production process. Some of the benefits that Checker vision sensors can provide include:

- Reduce scrap materials by identifying defects during the manufacturing process
- Evaluate multiple features of a part simultaneously, reducing the overall inspection time
- Eliminate the need for complex fixturing and separate vision components (camera, lighting, position sensors, etc)
- Simplify the training process so new sensors can be installed and operational fast.



Applications of Checker Vision Sensors

The uses for a Checker vision sensor are nearly limitless. Some examples of deployed applications include:

- Verifying the presence of a safety seal on consumer products
- Determine the thickness of machined parts or the presence or absence of threads in a part in the automotive industry
- Image cases of products, such as wine bottles, and identify non-full cases
- Detect the presence of alphanumeric codes on food packaging and flag product if codes are missing
- Inspect beer bottles for the presence of three separate labels at high speeds

Checker vision sensors by Cognex provide an affordable visual inspection option that is easy to integrate into existing production lines.